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VOLUME XXXI — May 18, 1953 — NUMBER 30

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IMPORTANT NOTICE

Did you receive a RENEWAL BLANK with this issue? If so, it means that your subscription expires on this date. Please fill it out and return it promptly. This will insure your getting the GEOGRAPHIC SCHOOL BULLETINS when publication resumes after the summer vacation. This is the last issue of the BULLETINS until October 5.

17-Year Cicadas in Platoons and Battalions attract Washington school children. A Department of Agriculture cicada expert explains the insects' strange ways and explodes some superstitions that have grown up about them. To begin with, they are *not* "locusts," and the W on their wings does *not* mean "war, want, and woe." (See Bulletin No. 1)

(SEE BULLETIN NO. 1) BATES LITTLEHALES

by Roman numerals. Brood X (1936, 1953, 1970) is by far the largest. It appears through much of the eastern United States, especially in the middle Atlantic seaboard, Indiana, and the southern Appalachians. A dwarf variety emerges at the same time.

Indians regarded the mysterious appearance of the cicadas with awe. So did early European settlers. When the Pilgrims at Plymouth Colony first heard the cicadas keening in 1634, they mistook them for crop-devouring locusts and feared a plague such as ravaged Pharaoh's Egypt in Biblical times. Thus the popular misnomer "locust" originated, though cicadas are no relation of those hungry-jawed grasshoppers.

The only serious harm done by cicadas is during their egg-laying process. The female chisels gashes in tree twigs and deposits 400 to 600 eggs in the slits. Such gashing often causes the twigs to wither.

The cicada is hard on human eardrums. So great is the din of its chorus that schools have had to close because pupils could not concentrate in such an uproar. One of the cicada "tunes" sounds like a knife held against a grindstone. Another, which gave colonists added fear of a Biblical plague, seems to intone the title of Egypt's ruler, Pharaoh.

MOODY INSTITUTE OF SCIENCE

A Rip Van Winkle of the Insect World, the cicada emerges from its 17 years underground. Waving lobsterlike claws, it prepares to burst its shell and fly forth on filmy wings.

Two abdominal drumheads are vibrated by powerful muscles to make the dismal "song." Only males sing, inspiring the ancient Greek quip: "Happy are the cicadas' lives, for they all have silent wives."

References: A forthcoming issue of *The National Geographic Magazine* will contain the complete, illustrated story of the periodical cicada.

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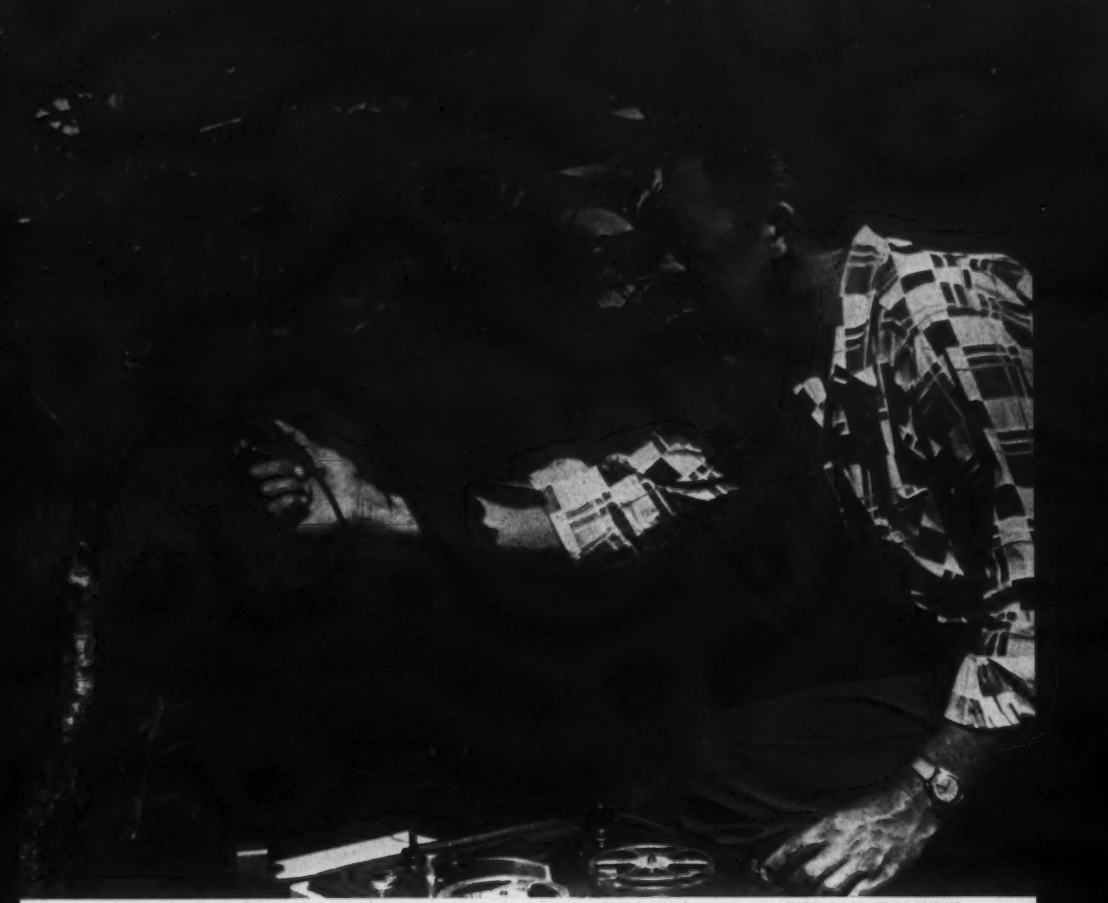

MOODY INSTITUTE OF SCIENCE

Cicadas Supply Sound Effects for a science film. From their perch on the twigs, 17-year cicadas give forth into a microphone their characteristic raucous din. Tape recorder picks up the buzz-saw chorus tireless insects sing from dawn to dusk.

Bulletin No. 1, May 18, 1953

"17-Year Locusts" Serenade Eastern U.S.

HAVE you wondered about those strange noises in the woodlands and those funny bugs climbing the trees on your lawn? Unless you are old enough to remember 1936, you may never have heard or seen anything like it in your life (illustration, cover).

For this May is the month that the so-called 17-year locusts crawl out of the ground, climb the nearest tree, and bombard the surrounding air with their "singing." Those who remember the last visitation are only half joking when they say, "Once every 17 years is enough!"

The true name of these insects is the periodical cicada. Their appearance after 17 years is part of an unusual life cycle. While underground they are in nymph form and resemble crayfish. Twenty thousand or more may climb from beneath one tree. Then the cicadas burst from their old shells and emerge as soft, milky-pale winged adults.

They harden overnight into active 1¼-inch black insects with transparent wings and red eyes. They begin their daytime wailing, feed harmlessly on plant fluids, and mate in the month before they die.

Brood X—Each year has its own brood, which scientists designate

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